

REMARKS:

Claims 16, 20 and 24 are canceled, claims 21-23 and 28 are withdrawn from consideration, claims 17-19 and 25-27 are amended and claims 30 and 31 are added herein. Claims 17-19, 25-27, 30 and 31 will be pending and submitted for consideration upon entry of this amendment.

This letter is responsive to the Office action dated December 17, 2003.

Withdrawal by the Office of claims 25-27

Applicants respectfully request reconsideration of the Office's withdrawal of claims 25-27 from consideration. The previous Office action dated August 28, 2003, required election among three species disclosed in the present application, one of which was the stretching, engaging and contracting of loop material. No election as to the timing of the stretching, engaging and contracting of the loop material (e.g., during manufacture of the article or as the article is placed on the wearer) was required. Absent such a timing restriction, applicants' elected the stretching, engaging and contracting species and submitted claims 16-20 and 24-27 as reading on the elected species.

The Office's withdrawal of claims 25-27 appears to be based on its characterization of the elected species as limited by the present application to being performed upon placement of the article on a wearer. While applicants strongly disagree with such a characterization, claim 25 is amended herein to remove the terms "pre-fastened" and "upon initial assembly" from the preamble of the claim to thereby broaden the claim to

cover performance of the recited method during manufacture or upon placement of the article on the wearer.

Applicants therefore respectfully request that claims 25-27 as amended herein be considered as reading on the elected species.

Objection to Specification

The specification has been amended to address the objections raised in paragraphs 5 and 6 of the Office action. With regard to the Summary of Invention, upon notification that one or more claims of the application are allowable, applicants agree to amend the Summary of Invention accordingly.

The specification as amended herein is otherwise submitted to be in proper form for allowance.

Objection to Drawings

Replacement sheets including Figs. 1-4 are submitted herewith and reflect amendments in accordance with the objections raised in paragraph 4 of the Office action.

Claim Objections

Claims 16 and 20 are cancelled herein, thereby rendering moot the objection raised in paragraph 7 of the Office action. However, the objection was considered in writing new claim 30.

Response to Rejection of Claims

Claim 16 is canceled and claims 17-19 are amended to depend from new claim 30, the patentability of which is discussed below.

Claim 30

New claim 30 is directed to a method of securing an absorbent article in a fastened configuration for personal wear. The method comprises:

a) forming an absorbent article to have a body having first and second end regions, the body comprising an inner layer for contact with a wearer's skin wherein at least a portion of said inner layer is liquid permeable, an outer layer in opposed relation with the inner layer, and an absorbent layer disposed between the inner layer and the outer layer;

b) positioning a mechanical fastening system on the body, the mechanical fastening system comprising a loop component and a hook component, the loop component comprising a loop material secured to an elastic substrate such that the loop component is capable of elastic stretch and retraction, the hook component being fastenably engageable with the loop material of the loop component;

c) stretching the loop component;

d) engaging the hook component and the loop component whereby the hook component fastenably engages the loop material of the loop component; and

e) allowing the loop component to retract.

By constructing the loop component of a loop material secured to an elastic substrate, the loop component is capable

of elastic stretching upon application of an elongating force and of elastic retraction upon release of the elongating force. The loop component is stretched prior to engagement with the hook component so as to expose a greater surface area of the loop material to the hook component. Upon engagement of the hook and loop components, the hook component fastenably engages the loop material of the loop component to secure the hook and loop components together. Thus, even in the stretched condition of the loop component, the hook and loop components are secured together upon engagement. Subsequent retraction of the loop component further engages the hook component with the loop material of the loop component to strengthen the engagement.

Moreover, because the hook component fastenably engages the loop material of the loop component, the hook component is otherwise covered by the elastic substrate of the loop component so that the hook component is unexposed, thereby reducing the risk of the hook component catching on clothing items or irritating the article wearer or a caregiver.

New claim 30 is submitted to be patentable over the references of record, and in particular U.S. Patent No. 5,901,419 (Widlund et al.) in that whether considered alone or in combination, the references fail to disclose or suggest a method of securing an absorbent article in a fastened configuration for personal wear wherein a loop component comprising a loop material secured to an elastic substrate is stretched, a hook component is fastenably engaged with the loop material of the loop component while the loop component is in the stretched condition, and the loop component is then retracted.

Widlund et al. disclose fastener means for disposable absorbent articles. The fastener means includes (with reference to Figs. 1 and 8a through 8c as cited in the Office action) a first element (1) having elastic properties and a second element (4) characterized by hook devices (5). The first element (1) is constructed of a blank made of pliable material, and an elastic structure (2) (e.g., the elastic bands (21-24) in Fig. 1, a loop of elastic thread as shown in Figs. 3a and 4a, or an elastic net as shown in Figs. 5a-d) which is mounted on the blank and which can stretch and contract in a stretch direction.

In all but the embodiment of Figs. 5c and 5d, the blank of the first element (1) has a slit (e.g., slit (3) in Fig. 1, or button-hole like slits (36-39) in Fig. 4a) formed therein whereby the number of slits formed in the blank is equal to or less than the number of hook devices on the second element (4). To fasten the first and second elements (1,4) of these embodiments, the first element (1) is stretched to increase the size of the slits (e.g., to form sufficiently large gaps) and the hook devices of the second element (4) are passed therethrough. The first element is then retracted to close the slits around the hook devices, with the hook devices extending through both the elastic structure (2) and the blank of the first element.

In the embodiment disclosed in Figs. 5c and 5d of Widlund et al., the elastic structure is an elastic net secured to a blank at end portions of the blank and free from securement to the blank at a central portion thereof. Upon stretching of the first element in this embodiment, the openings in the elastic net increase in size and the hook devices are passed

therethrough. Upon retraction of the elastic net, the openings in the net close around the hook devices. Thus, the second (i.e., hook) element (4) fastenably engages the elastic net, but not the blank of the first element (1).

Widlund et al. fail to show or suggest a loop component comprising a loop material secured to an elastic substrate as recited in new claim 30, and further fail to show or suggest fastenably engaging a hook component to the loop material of the loop component while the loop component is in a stretched condition. Specifically, Widlund et al. clearly fail to show or suggest a loop component constructed of a loop material.

Persons of skill in the art understand loop material to comprise a component of conventional hook and loop fasteners (e.g., VELCRO). Such loop material has a plurality of fibers arranged by a woven, non-woven or other process so as to form a plurality of loops on which hooks from a hook fastener can become entangled. As a result, where loop material is secured to an elastic substrate to form a loop component and the loop component is stretched, as recited in new claim 30, the hooks can still fastenably engage the loop material in the stretched condition of the loop component.

In contrast, the first element (1) disclosed by Widlund et al. is more aptly described as a button-hole type component in which openings (e.g., slits (3)) are enlarged to allow hook devices to pass therethrough and then decreased in size to surround the hook devices. In such a configuration, the hook devices do not fastenably engage the first element when the first element is stretched, because the slits formed in the first element are substantially increased in size, e.g., larger

than the size of the hooks, to allow the hooks to pass through the first element.

In fact, Widlund et al. expressly teach against the use of loop material. At column 1, lines 38-42, Widlund et al. describes the fastener means of conventional absorbent articles as having the form of mechanical devices, noting VELCRO as an example, where one pile surface is comprised of hooks and is fastened to an adapted pile surface comprised of loops. Widlund et al. go on to point out the various drawbacks of using such fastener means. See, e.g., column 1, line 46 through column 2, line 42. Thus, Widlund et al. distinguish the first element (1) disclosed therein as not being a conventional loop material having the many drawbacks associated with such loop material.

For similar reasons, Widlund et al. further fail to disclose or suggest retracting a loop component following fastening engagement of the loop component and the hook component. That is, there is no fastening engagement of the first and second elements (1, 4) of Widlund et al. while the first element is stretched. Rather, it is the retraction of the elastic structure (2) that provides fastening engagement of the hook devices with the first element. In contrast, the method recited in new claim 30 provides for fastening engagement of the hook component and stretched loop component prior to retraction of the loop component. The retraction strengthens the engagement of the hook component with the loop material of the loop component.

The other references of record similarly fail to show or suggest the combination of features recited in new claim 30.

For these reasons, new claim 30 is submitted to be patentable over Widlund et al. and the other references of record.

Claims 17-19 have been amended to depend directly from new claim 30 and are submitted to be patentable over the references of record for the same reasons as claim 30.

New claim 31 also depends from claim 30 and is submitted to be patentable over the references of record for the same reasons as claim 30.

Claim 25

Claim 25 as amended herein is directed to a method for securing engagement between fastening components of an article used for personal wear, the fastening components comprising a hook component and a loop component, the loop component comprising a loop material secured to a substrate, the hook component being capable of fastening engagement with the loop material of the loop component. The method comprises the steps of:

- a) arranging the fastening components in at least partially opposed relationship with each other;
- b) engaging the fastening components with each other to define an engagement seam whereby the hook component fastenably engages the loop material of the loop component; and
- c) urging sliding movement of one fastening component relative to the other fastening component to promote increased engagement between the fastening components at the engagement seam.

Amended claim 25 is submitted to be patentable over the references of record, and in particular Widlund et al., in that whether considered alone or in combination the references fail to show or suggest a method for securing engagement between fastening components of an article used for personal wear wherein a hook component is fastenably engaged with a loop material of a loop component constructed of a loop material secured to a substrate, and then one of the hook and loop components is slidably moved relative to the other component to increase the engagement between the hook component and the loop material of the loop component.

More specifically, as discussed above in connection with claim 30, Widlund et al. fail to disclose or suggest engagement of a hook component with a loop material. In fact, Widlund et al. teach away from using loop material in favor of the more button-like arrangement disclosed by Widlund et al. Moreover, Widlund et al. fail to disclose or suggest first fastenably engaging two fastener components and then slidingly moving one fastener component relative to the other to increase engagement between the components. Rather, as was also discussed above, when the first element (1) of Widlund et al. is stretched and the hook devices are inserted through the enlarged slits of the first element, there is no fastening engagement between the hook devices and the first element because the slits are larger than the hook devices. Consequently, the first and second elements of Widlund et al. are not fastenably engaged prior to retraction of the first element.

For these reasons, claim 25 as amended herein is submitted to be patentable over the references of record.

Claims 26 and 27 depend from claim 25 and are submitted to be patentable over the references of record for the same reasons as claim 25.

CONCLUSION

In view of the above, applicants respectfully request favorable consideration and allowance of claims 17-19, 25-27, 30 and 31 as now presented.

Respectfully submitted,



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